

SOUND MASKING

Ensure patient privacy —
and a good night's sleep

MASS NOTIFICATION

New regulations change the
face of mass notification

TECH RX

New gear for
better systems



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HealthcareAV



HIGH TECH TRAINING

**JOHNS HOPKINS DESIGNS A TEACHING CENTER
TO BETTER PREPARE NEW DOCTORS**

FAIL-SAFE CRITICAL PUBLIC ADDRESS. NO MATTER WHAT THE MESSAGE.

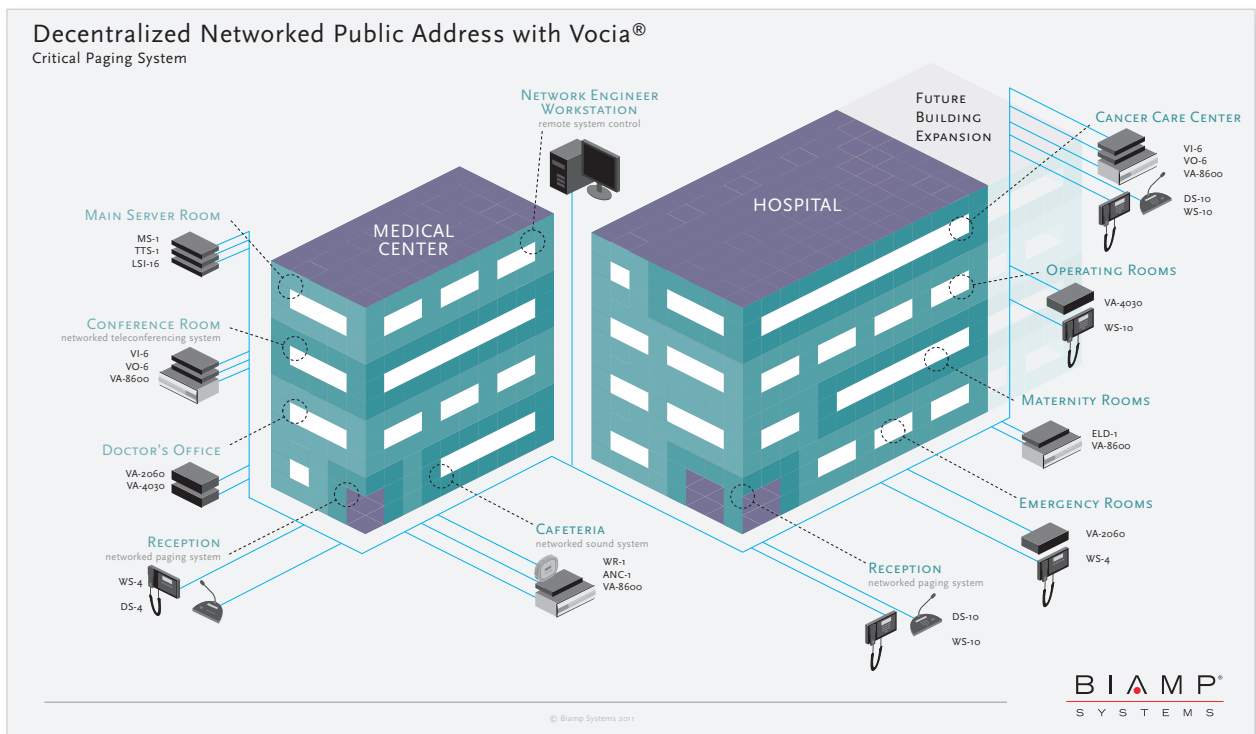
Vocia is more than a simple public address system. It's the result of Biamp understanding healthcare needs and acting on the evolving communications trends in the Healthcare Information Technology market.

The Vocia platform is designed using a decentralized network appliance concept. This approach is similar to other failsafe IT system. Applying it to standard and advanced public address features enables the delivery of a superior alternative to the traditional, centralized analog PA system. Vocia uses standard Ethernet infrastructure to lower your total cost of ownership, and provides software tools for easier system implementation, remote support and maintenance.

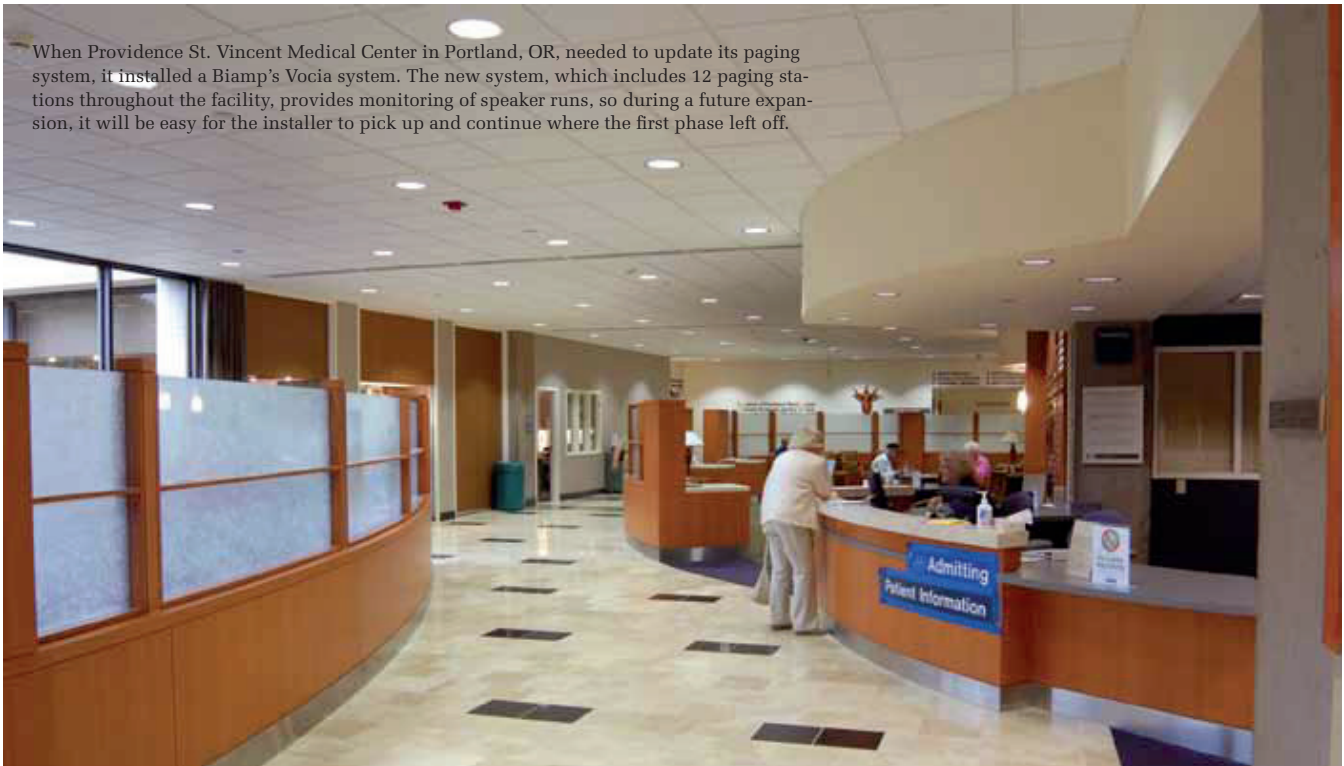
VOCIA MEETS AND EXCEEDS THE NEEDS OF SINGLE- AND MULTI-TOWER HOSPITAL CAMPUSES

Using Vocia as a campus-wide critical public address system, the features and functionality of Vocia's networked audio and control architecture empower designers, installers and hospital technical staff to readily create a flexible, reliable paging system. This removes the complexity and burden of supporting a legacy analog system.

Its fail-safe, network-based architecture easily expands into new zones and new buildings. In fact, it was built from the ground up to meet life safety standards, providing the reliability and scalability you need today and in the future.



When Providence St. Vincent Medical Center in Portland, OR, needed to update its paging system, it installed a Biamp's Vocia system. The new system, which includes 12 paging stations throughout the facility, provides monitoring of speaker runs, so during a future expansion, it will be easy for the installer to pick up and continue where the first phase left off.



Luz explained. This enables hospitals to play back one type of music in the cafeteria, for example, another in the radiology lab, and yet another in the gift shop. "It allows for that kind of functionality, and it also allows for the supervision of other types of systems, like the Code Blue system." He adds that Praesideo is in compliance with all of the additional NFPA 72 2010 codes.

ADDING DIGITAL SIGNAGE TO THE MIX

The adoption of NFPA 72 2010 is not only resulting in the combination of audio systems; it's introducing a visual element as well. Facilities industry-wide are already exploring how their existing digital signage systems may accommodate messaging such as emergency evacuation alerts, providing significant opportunities to systems integrators. Steve Acquista, director of

Digital Signage ROI

It's difficult to put a price on the circulation of important information — especially in an emergency situation. Digital signage, for example, proves to be an effective medium for displaying emergency alerts, but in reality, how many emergencies must one facility deal with over its lifecycle?

Steve Acquista, director of digital signage at Black Box Network Systems, noted that the ROI on this technology extends to its everyday use. "Digital signage is just like a canvas, it starts out with a clean slate. What you paint on it, and how that translates to your visitors and patients is up to you," he said. Some facilities utilize it as a form of community outreach, while others opt to display information on new procedures and doctors. "It really depends on the organization, what they want to talk about, and the things they want to draw attention to."

Paging Priorities

Important aspects of a superior critical paging system in a high-reliability environment include:

- Sufficient paging stations in each critical location that are monitored regularly and automatically by the system
- Amplifiers with channel or device failover, network redundancy, speaker line monitoring, ambient noise compensation, and built-in emergency message storage
- An uninterrupted power supply (UPS) for critical system components (amplifiers, servers, switches)
- Redundant, mirrored servers to ensure the continuing function of system devices (i.e., message playback and VoIP paging interface)
- Standard network-based system interconnections, utilizing managed ethernet switches, Rapid Spanning Tree Protocol (RSTP) principles, and a fault relay output; the network should be kept separate from other network traffic
- Devices should be able to be easily swapped out by maintenance staff, and the Ingress Protection (IP) rating is important

FOLLOW-UPS

Thesetipsaretakenfromthe"CriticalPagingSystems:SolutionsforSafety"whitepaperfromBiampSystems.Downloaditatthehealthcare-av.com/summer11.

digital signage at Black Box Network Systems, noted that those integrators exploring this terrain must be cognizant of the need to properly integrate these systems together.

"Right now, if you walk into some healthcare facilities, their systems are not tied together, especially when it comes to digital signage," Acquista said. "The reason is that the different departments took it upon themselves



Blasting the Past

Multi-use hospital auditorium gets completely re-modeled to become a high-tech, energy-efficient presentation center

CLIENT: Englewood Hospital & Medical Center (EHMC), Englewood, NJ

CONSULTANT: Assurity Design Group (ADG), Warwick, NY, www.assuritydg.com

CHALLENGE: Built in 1983, the Englewood Hospital & Medical Center auditorium had little, if any, improvements over the years. A general upgrade to the audiovisual systems happened in the early 1990s, but outside of that no other improvements were made. The ADG objective was to upgrade the technology in the space to that befitting a world-class hospital and teaching facility. Simplicity was also a primary objective as the room is often used by different speakers, instructors, and visiting doctors, as well as for community events.

SOLUTION: Crestron DigitalMedia was installed as the single-platform solution to manage, control, and distribute multimedia technology throughout the hospital.

PROJECT TIME FRAME: Planning to project start was six months. Project installation from start to finish was six weeks.

System Description/Key Equipment

Audio/Video System Upgrades: A complete new digital-based AV system was created using Crestron's Fiber Optic DM transmission solution and a Biamp Audio DSP audio processor. Connections to all video format types (HDMI, VGA, DisplayPort, composite video, and component video) are all available from the custom designed and built lectern, as well as the control booth. A Digital Projection dVision projector and a Stewart

Filmscreen screen are powered by a Crestron DVP-HD digital video processor. Programs now can be streamed live or recorded for later viewing with the Sonic Foundry Media Sight.

Lighting: Existing incandescent 150-watt light fixtures were replaced with new energy-efficient compact fluorescent fixtures by Edison Price. The old fixed theatrical PAR lights were replaced with Elation moving-head theatrical lighting with full DMX integration. Older T12 fluorescent accent lights were replaced with Acclaim RGB LED strips.

Lighting Control: The old dimming and switching system was replaced with a new Crestron Greenlight lighting control system. The new system increased the number of presets from four on the old system to more than 20 on the new systems. The client now has the ability to create custom scenes instantaneously for special events without the need to hire a programmer.

Lectern: A new custom-designed lectern for the

EHMC is the first hospital in the United States to have thermal imaging counters in use. The counters know the exact amount of people in the room at all times and can be used to notify the instructor of the attendance.

auditorium's specific purpose was created and built, providing more space for paperwork, laptop, and a 17-inch touchpanel for control. Hidden away is a Samsung HD document camera for display of special documents or objects.

Equipment Notes: EHMC is the first hospital in the United States to have thermal imaging counters in use. The counters, which are made by Irisys Infrared Integrated Systems Ltd., know the exact amount of people in the room at all times and can be used to notify the instructor of the attendance. EHMC can run a detailed cost-per-

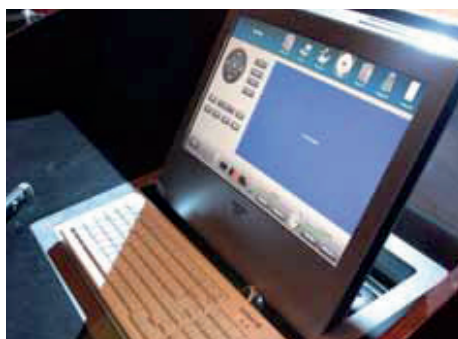
person energy benchmark when renting the space for events.

Installation Notes: According to William T. Schafer, Principal, Assurity Design Group: "The biggest challenge with this installation was centered around the extremely short timeframe that the contractors had to install the systems. The space was used by the hospital on a regular basis, so the contractors were only given a few weeks to start and complete their phase of the project. The entire project went from demolition (removal of old seating, wall treatments, AV, and lighting) to being

used for the first seminar in less than three weeks. This was accomplished by committed contractors and some very long days.

"Another challenge that we had was to make the system simple to use. The main charter that was given to us was that different guest speakers would always show up with laptops with different types of output connectors. They wanted a system that was easy to understand without needing adapters or patch cords. The solution was to provide every type of analog and digital connection available at the lectern location. So no matter what the person has for an output source — HDMI, VGA, DisplayPort, even composite video, the wire is right there — no adapters needed.

"This challenge of video connections is what really led us to Crestron as the main equipment to run the project. The DM system allowed us to mix all the different types of signals and run them back to the rack location on simple and easy to run fiber optic. Any other system would have taken more hardware and more wires to accomplish the same task."



ABOUT BIAMP SYSTEMS

Biamp Systems is a leading international provider of superior public address and professional audio systems. Headquartered in Beaverton, Oregon with additional engineering operations in Brisbane, Australia, Biamp products are designed to meet the audio requirements for a wide range of applications, regardless of the facility size or location. For 35 years organizations around the world have depended upon Biamp to deliver high quality, innovative professional audio solutions.



ABOUT VOCIA® PUBLIC ADDRESS SYSTEM

In hospitals, every announcement is important. It's how you keep patients, staff and visitors safe. It's how you communicate. So losing public address capabilities is not an option. Now Vocio—the world's first networked, decentralized public address system—provides more options, flexibility and greater scalability. Options that deliver unprecedented system control, and more flexibility through the use of current network infrastructure. Plus greater scalability, from systems with just one zone to several across multiple buildings. Now you can design and deliver the PA system clients need now and in the future.



Find out why Biamp's Vocio is the public address system to consider. Visit us at www.biamp.com/vocio.

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